

**Product Texts**

- MVR (300 °C/1.2 kg) 5.0 cm<sup>3</sup>/10 min
- medical devices
- suitable for ETO and steam sterilization at 121 °C
- biocompatible according to many ISO 10993-1 test requirements
- high viscosity
- easy release

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melt volume-flow rate, MVR	5	cm <sup>3</sup> /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
<sup>[C]</sup> Molding shrinkage, parallel	0.7	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	0.8	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	2400	MPa	ISO 527
<sup>[C]</sup> Yield stress	66	MPa	ISO 527
<sup>[C]</sup> Yield strain	6.2	%	ISO 527
<sup>[C]</sup> Nominal strain at break	>50	%	ISO 527
<sup>[C]</sup> Tensile creep modulus, 1h	2200	MPa	ISO 899-1
<sup>[C]</sup> Tensile creep modulus, 1000h	1900	MPa	ISO 899-1
<sup>[C]</sup> Charpy impact strength, +23°C	N	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	N	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Puncture - maximum force, +23°C	5800	N	ISO 6603-2
<sup>[C]</sup> Puncture - maximum force, -30°C	6700	N	ISO 6603-2
<sup>[C]</sup> Puncture energy, +23°C	65	J	ISO 6603-2
<sup>[C]</sup> Puncture energy, -30°C	75	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Glass transition temperature, 10°C/min	147	°C	ISO 11357-1/-2
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	127	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	139	°C	ISO 75-1/-2
<sup>[C]</sup> Vicat softening temperature, B	148	°C	ISO 306
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	65	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	65	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Optical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Luminous transmittance	89	%	ISO 13468-1, -2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
<sup>[C]</sup> Water absorption	0.3	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	0.12	%	Sim. to ISO 62
<sup>[C]</sup> Density	1200	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Injection Molding, melt temperature	310	°C	ISO 294
Injection Molding, mold temperature	90	°C	ISO 294

Injection Molding, injection velocity	<b>200</b>	mm/s	ISO 294
---------------------------------------	------------	------	---------

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	<b>120</b>	°C	-
Pre-drying - Time	<b>2 - 3</b>	h	-
Processing humidity	<b>≤0.02</b>	%	-
Melt temperature	<b>280 - 320</b>	°C	-
Mold temperature	<b>80 - 100</b>	°C	-

## Characteristics

### Processing

Injection Molding, Other Extrusion, Blow Molding

### Certifications

Medical Grade, Biocompatibility ISO 10993

### Delivery form

Pellets

### Applications

Medical

### Additives

Release agent

### Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

### Special Characteristics

Transparent, Opaque, Sterilizable, Ethylene Oxide (EtO)  
Sterilization, Steam sterilization

## Other text information

### Injection molding

#### PREPROCESSING

Max. Water content: 0.01 - 0.02 %

Drying temperature: 120 °C

Drying time:

Circulating air drying oven (50 % fresh air) 4-8 h

Fresh air dryer (high speed dryer) 2-4 h

Dry air dryer 2-3 h

#### PROCESSING

Melt temperature: 280-320 °C

Mold temperature: 80-100 °C

Use open nozzle.